

### AMENDMENTS TO THE CLAIMS

#### Claims 1-23 (Canceled)

24. (Previously added) A transgenic mouse whose genome comprises a disruption in an endogenous CRFR2 gene, wherein where the disruption is homozygous, the transgenic mouse exhibits decreased activity, relative to a wild-type mouse.
25. (Previously added) The transgenic mouse of claim 24, wherein the decreased activity is characterized by a decrease in distance traveled in an open field test.
26. (Previously added) A transgenic mouse whose genome comprises a disruption in an endogenous CRFR2 gene, wherein where the disruption is homozygous, the transgenic mouse exhibits decreased susceptibility to seizure, relative to a wild-type mouse.
27. (Previously added) The transgenic mouse of claim 26, wherein the decreased susceptibility to seizure is characterized by the transgenic mouse requiring a higher dose of metrazol to elicit a seizure response.
28. (Currently amended) A method of producing a transgenic mouse comprising a disruption in an endogenous CRFR2 gene, the method comprising:
  - a. introducing a CRFR2 gene targeting construct into a ~~murine~~ mouse embryonic stem cell;
  - b. introducing the ~~murine~~ mouse embryonic stem cell into a blastocyst;
  - c. implanting the resulting blastocyst into a pseudopregnant mouse, wherein the pseudopregnant mouse gives birth to a chimeric mouse; and
  - d. breeding the chimeric mouse to produce the transgenic mouse, wherein where the disruption is homozygous, the transgenic mouse exhibits decreased activity or decreased susceptibility to seizure, relative to a wild-type mouse.
29. (Previously added) The transgenic mouse produced by the method of claim 28.
30. (New) The transgenic mouse of claim 24, wherein the disruption deletes nucleotides 441 through 582 of the endogenous CRFR2 gene and results in lack of production of functional CRFR2 protein.
31. (New) The transgenic mouse of claim 26, wherein the disruption deletes nucleotides 441 through 582 of the endogenous CRFR2 gene and results in lack of production of functional CRFR2 protein.

32. (New) The method of claim 28, wherein the CRFR2 gene targeting construct causes a disruption in the endogenous CRFR2 gene which deletes nucleotides 441 through 582 of the endogenous CRFR2 gene resulting in lack of production of functional CRFR2 protein.
33. (New) The transgenic mouse produced by the method of claim 32.